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A social network analysis of family and community conflicts in post-civil war Mozambique

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ABSTRACT

The existing literature on post-civil war processes has inadequately addressed the diversity of challenges of social reconstruction and community development arising from the fragmentation of cultural practices informing the creation and maintenance of family and social networks, and a variety of locally specific risks impacting the lives of survivors and subsequent generations. This paper addresses this gap by empirically investigating how unresolved legacies of Mozambique's civil war (1976–1992) have fueled a network of local problems in the Gorongosa district. We used network analysis of cases presented in community courts over a decade (2002–2012) to reveal the existence of entrenched disputes involving spouses, divorce cases, domestic violence incidents, financial debts, accusations of wartime violations, and a range of adverse wellbeing outcomes. The conflicts and relationship dynamics vary in intensity over time but remain closely linked to civil war-induced risks, such as disrupted practices of premature marriages and interpersonal mistrust. Taking together these results reinforce the need to address disrupted patterns of family relations, lingering accusations of wartime violations, and to enhance the capacity of local community institutions and courts as part of social reconstruction efforts and development goals.

1. Introduction

The pathways for effective post-civil war social reconstruction processes at family and community levels remain a source of major debates and disagreements among post-conflict scholars. In general, various authors agree that major events like protracted civil wars unleash transformations in socio-cultural beliefs and practices around family and community relations (Argenti-Pillen, 2003; Coulter, 2009; Kastfelt, 2005; Langhamer, 2006; Lubkemann, 2008a; West, 2005; Wood, 2008). However, the post-conflict literature still requires a comprehensive analysis of local specificities regarding the cultural continuities and discontinuities that impact family relations and social networks. This type of analysis is required because at the core of all civil wars are civilian populations, who in the warzones must coexist with different and complex regimes of violence. Everywhere the belligerents both depend on civilian populations but also intimately target their cultural beliefs and practices and collective ways of living (Donham, 1999;

Jentzsch, 2022; Kalyvas, 2006; Nordstrom, 1997; Kastfelt, 2005). To gain legitimacy and sustain the civil war efforts, the various rival armed groups tend to attribute positive valence and tap into collective identities and cultural practices of local populations (Donham, 1999; Geffray, 1990; Kubota, 2017). Yet, to defuse dissension, and enforce loyalty and compliance, the same armed groups violently target civilians and their families, abduct, sexually assault young girls and women and forcing them into marriage, thereby fragmenting collective identities and cultural practices (Amony, 2015; Coulter, 2009; Mazower, 2000; Nordstrom, 1997; Perera, 2001). In their turn, civilian populations willy-nilly get bitterly divided while they attempt to use and negotiate their cultural beliefs and practices under attack as protective and resistance mechanisms against all kinds of violence (Donham, 1999; Ellis, 1999; Igreja, 2018a; Kaplan, 2013; Lan, 1985). These conditions indicate that pre-existing social networks and family relationships influence the local dynamics of conflict. Conversely, civil war conflicts reshape social networks and family structures. Yet, the effects of these precarious civil

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wartime relations do not cease with the official signing of peace agreements, nor should the long-term impacts be overlooked. Thus, this paper contributes to the extensive body of post-conflict literature through a long-term qualitative and quantitative analysis of how civil war survivors (e.g., victims, perpetrators, bystanders) and postwar generations publicly presented and negotiated their everyday problems including family disputes, divorces, debts, and serious accusations of unresolved civil wartime violations.

The geographic scope of this study is Gorongosa, a rural district in central Mozambique, with an agricultural-based economy and patrilocal rules of residence. In this cultural model based on patrilineality and social relations of exchange, the way men marry influences not only their lives but also the fates of their children –whether they die old or young, sick, or healthy, bitter, or compassionate, and poor or rich, as defined within the community. In this context, young men and their patrikin invest consistently in the fiancée and her family to expand family and social networks. In turn, the fiancée and her relatives receive gifts and actively participate in these social relations of exchange through their labor. However, the region experienced various forms of collective violence, particularly during the civil war period (1976–1992) which impacted upon such expectations and practices around creation and maintenance of family relations and expansion of social networks. Civilian populations, government soldiers, and the rebels established complex relationships that continuously reshaped family and social networks, leaving lasting legacies. To grasp the specific meanings and implications of such transformations and legacies, we adopted a sustained focus of analysis on the ‘local network of problems’ (Jayawickreme et al., 2017) which became salient in community courts. This setting offered insights into the conflicts that repeatedly arose as civil war generations and their offspring sought to build family relationships and expand social networks. In this rural, informal economy, these networks are vital, as agricultural production and the creation of surplus relies heavily on them (Igreja, 2007). The disputes in community courts highlighted problems emerging from cultural practices of premature engagement/marriage which functioned as protective factors before and during the civil war. However, in the post-civil war era, these practices have transformed into troubling risk behaviors, leading to the fragmentation of family relations involving categories of relationships such as “spouse vs spouse”, “father-in-law vs. son-in-law”, “brother vs. brother”, “ex-husband vs. ex-wife”, and neighbors. Given the sheer number of participants, the links between numerous categories of relationships and conflict events, the social network analysis was used to modelling these relations and associated risks facing entire communities. Network analysis was equally useful to capture the upward and downward fluctuations of dynamics of conflicts over the study period.

Since the end of the Cold War and subsequent growing involvement of the United Nations in peace operations in contexts of civil wars, when brokered peace agreements are officially attained there are serious concerns over the extent that people’s beliefs, meaning attributions and behaviours are informed by or discontinued from the civil wartime patterns and relations (Kubota, 2017). Interrogations around continuities and discontinuities also consider the risk of families and communities succumbing to stress and suspicion, which can ignite new cycles of precarity and collective violence (Hanlon, 1996; Kashdan et al., 2009; Mueggler, 2001; Perera, 2001). Such concerns are further aggravated by the absence of government and development agencies focused on addressing some of the most locally insidious legacies of civil wars over time (De Schryver et al., 2015; Gatewood & Price, 2017; Jayawickreme et al., 2017; Maynard, 1997; Stys et al., 2022). With exception of a few post-conflict countries whose national governments (e.g., Timor Leste, Guatemala, Liberia, Rwanda, Sierra Leone, South Africa), sometimes supported by international donors, adopted transitional justice policies, in many other cases (e.g., post-civil war Mozambique, this paper’s focus; see also Afghanistan, Angola, Guinea Bissau, Libya, Myanmar, Namibia, Somalia, Sri Lanka, Syria), civil war survivors are left to fend for themselves, while amnesty laws shield alleged serious perpetrators from

facing justice (Igreja, 2015a). These conditions heighten the challenge of maintaining local order and guiding the social reconstruction with some level of predictability.

Historical analyses and sociological studies of various post-conflict societies often emphasize salient groups that harbor hopes – whether realistic or fantasized – that safeguarding the institution of family and expanding family ties through marriage and enforcing strict divorce measures can help restore a sense of moral order and continuity (Declich, 2016; Herzog, 2007; Jayawickreme et al., 2017; Langhamer, 2006; Sheldon, 2002). Yet in some post-civil war communities attempts to protect and revive family networks might also fuel and intensify conflicts. Particularly in manual-based agricultural economies, such conflicts can be especially acute, as land access and usage are often tied to family inheritance norms and marriage practices (André & Platteau, 1998). This implies that in some settings post-civil war social reconstruction and development efforts cannot be separated from cultural practices that shape family constitution, maintenance, and divorce. Scholars have also investigated what happens to specific post-civil war processes such as reintegration of former male combatants, which many of them were child soldiers (Baptista-Lundin, 1998; Higgs, 2020; Honwana, 2006; Mehrl, 2021; Schafer, 2007; Wiegink, 2020), formerly abducted young girls and adult women, who in some cases became rebel fighters (Amony, 2015; Coulter, 2009; Gatewood & Price, 2017; Katto, 2014), the return and reception of displaced and refugee populations (Jenne, 2010; Lubkemann, 2008b) and the coping strategies of war widows (Brück & Schindler, 2009). These studies have revealed significant psycho-social and economic challenges involving difficulties to access land (André & Platteau, 1998; Brück & Schindler, 2009), discrimination and stigma due to civil wartime affiliations, which impacts negatively on the chances of these groups to access formal education, professional training, and jobs as well as difficulties among former female combatants and war widows, to remain married or find new marital partners (Brück & Schindler, 2009; Coulter, 2009; Katto, 2014; Wiegink, 2020). Other studies using nationwide or regional surveys probed the relations between exposure to civil wars and trust (Kijewski & Freitag, 2018; see also, Colletta & Cullen, 2000). These studies identified serious deficits of social trust which hamper cooperation and heighten interpersonal hostility outside family networks. However, it is also crucial to examine the lingering suspicions and hostilities within families in general, while acknowledging that civil war legacies have long-term trajectories.

1.1. What we know about post-civil war challenges, and what we still need to learn

Researchers in diverse social science fields have extensively covered the study of dynamics of violence in civil wars (Ali & Matthews, 1999; Jentzsch, 2022; Kalyvas, 2006; Licklider, 1993; Nordstrom, 1997), and the intricacies of negotiated peace deals to end civil wars and their potential for endurance over time (Druckman & Albin, 2011; Nilsson, 2012). Studies of post-conflict processes have also analysed the macro-economic pathways in the form of economic reforms and investments, decentralization and structural adjustments required for national reconstruction and mitigation of risks that might lead countries back to civil wars (Boyce, 2002; Collier et al., 2008; DeLugan, 2005; Hanlon, 1996; Mazower, 2000; Nordstrom, 1997; Pencey & Stanley, 2001; The World Bank, 1998). These studies reiterate the importance of agricultural and economic production and the restitution of local markets for post-civil war stability. Nevertheless, they tend to overlook the intricacies of the gift economies that permeate the establishment and maintenance of certain types of social relations of exchange in non-Western societies (Mauss, 1990 [1954]). Particularly in the context of establishing and maintaining marital relations, diverse types of gifts, which with passage of time might gain economic value, are mutually offered between fiancés and fiancées and respective family members. Yet, when there are ruptures in such relations leading to divorce the gifts

become debts which must be paid back (Comaroff & Roberts, 1981; Peebles, 2010). In such contexts, the financial profits acquired through agricultural production tend to be spent to mend broken relationships (e.g., *ku fewa*, see below) or such profits are spent to allay social fears derived from perceptions of ill-accumulation (e.g., accusations of witchcraft) of material resources and capital (Chabal & Daloz, 1999; West, 2005; Wiegink, 2020). While gift exchanges and “grabbing back” can enhance money circulation (beneficial for the economy), they may also create a financial strain, sometimes leading to an intergenerational transmission of debt. Thus, the need to empirically analyze the linkages between cultural disruptions, disputed marriage practices and debts.

Various post-conflict studies have revealed that given the processual nature of collective violence there are always connectivities between different types of violence as well as various forms of continuity between the past and the present (Marcelin, 2015: 230). Thus, the need to analyse the linkages between diverse types of intractable family and social conflicts, and the role of generational and gender divides involving the civil war survivors and post-civil war generations (Mazurana et al., 2005; Moser & Clark, 2001). For instance, a study assessed community resources, family relations and conflicts over a protracted period (1988–1993) in Rwanda prior to the 1994 genocide (André and Platteau, 1998). The results demonstrated that extreme land scarcity, coupled with kinship rules of inheritance and inadequate state institutions and policy interventions, impacted interpersonal relations, and triggered serious conflicts in the father – son dyads (André & Platteau, 1998). To a lesser extent, these family, community, and state inadequacies inflamed conflict in elder brother – sister dyads. However, from a network perspective (c.f. Cranmer, Desmarais & Menninga, 2012; Marks & Stys, 2019) and processual nature of collective violence, the study did not explore how the conflict relations – e.g., father and son and elder brother and sister – were also associated to the outcome of conflict over land scarcity, which can be seen as a form of violence for those who do not have it but still depend on it for their social and physical survival. Additionally, land scarcity was also exacerbated by related factors such as the local traditional inheritance customs and failures of the state-driven mitigation policies and interventions.

1.2. Social networks in post-conflict settings

Network analysis offers a useful and flexible way to study a gamut of actors, clustered around single or multiple participants, conflicts, or political interests (e.g., coalitions, alliances), and their relations to various events (Cranmer, Desmarais & Menninga, 2012). This analytic approach has been recently applied in criminal justice studies yielding significant insights into offence and offender characteristics, as well as mapping their diverse connections (Bright, Brewer and Morselli, 2022). The use of social network approaches to the analysis of post-conflict processes is still rare (Marks & Stys, 2019). However, in a rare study examining local networks of problems among survivors of the Sri Lankan civil war, this approach proved useful in uncovering a broader set of legacies (e.g., war traumas, psychopathology symptoms, lack of satisfaction of basic needs, and social problems) that extended beyond the typical focus on traumatic events and psychological traumas (Jayawickreme et al., 2017). These findings underscore the importance of examining the legacies of violent conflicts through the perspectives, discursive practices, and networks of those most affected (André & Platteau, 1998; Argenti-Pillen, 2003; Jayawickreme et al., 2017). Legal anthropologists have produced a wealth of studies on people’s behaviors in community courts as means of understating locally constructed, negotiated, and articulated meanings of conflicts, as well as the magnitude of injury and reparations (Comaroff & Roberts, 1981; Greenhouse et al., 1994; Hirsch, 1998; Yngvesson, 1993). However, long-term studies on community courts in post-civil war settings and their potential role in addressing unresolved wartime violations remain scarce (Huyse & Salter, 2008; Molenaar, 2005). The focus on local courts also provides an occasion to analyze how specific disputes are embedded

in specific histories (Yngvesson, 1993), while determining the web of risks that fuel specific conflicts in specific locations (c.f. Whalen, 2016).

Previous population studies among the Gorongosa populations were based on repeated measurements of the civil war exposure and psychological trauma outcomes, and consistently revealed high degrees of civil war exposure (Schreuder et al., 2001) and high prevalence of traumatic memories and sleep problems, and nightmares among the civil war survivors and depression and anxiety among the post-war generations (Audet et al., 2018; Igreja et al., 2024; Igreja et al., 2009). These studies have presented sustained evidence of the lingering psychological impacts of the civil war in these communities, which provided the interpretative basis to sustain the argument that the structure of conflict networks in this study cannot be fully grasped *independently* (c.f. Cranmer, Desmarais, Menninga, 2012: 287) of the legacies of the civil war events. Our inferences were further cemented by observing accusations of civil war time abuses expressed through idioms of supernatural agents (e.g., *gamba* spirits) (Igreja et al., 2009). Allegedly *gamba* are spirits of fallen soldiers that return to avenge the living by taking possession of their bodies because of serious abuses leading to death during Mozambique’s civil war (Igreja, 2018a,b; Marlin, 2001). The analysis of historical narratives of the civil war in this region (Bertelsen, 2016; Igreja, & Baines, 2019; Meier et al., 2013; Schafer, 2007; Wiegink, 2020) was equally significant to establish our interpretative context in that these narratives concur with Pierre Bourdieu (1998: 40) that “all violence is paid for”, to the extent that even when civil war survivors attempt to leave their painful past behind (Hayner, 2001), the legacies of their grisly civil war experiences continue to evoke fears and anxieties thereby shaping in unpredictable ways ongoing strategies, actions, and outcomes (Schafer, 2007; Wiegink, 2020; see also Coulter, 2009).

1.3. Study goals

This study aims to expand the focus of post-conflict research from specific groups and processes to entire communities and the connectivities between diverse types of civil war legacies. It employed a long-term research approach to analyze the significance of cultural transformations triggered by Mozambique’s civil war (1976–1992) and the emerging local network of post-civil war issues, including serious family disputes, contested practices of premature engagement/marriage, and strains on wellbeing. The empirical focus on community courts in the Gorongosa region over a decade (2002–2012) shed light on the types of social conflicts, the categories of interpersonal ties among the participants, their ages and gender, and how these factors were linked to risk behaviors, and socio-economic and wellbeing outcomes. The study also tracked changes in the centrality of social conflicts and relationships over the study period, and how the unresolved legacies of the civil war, combined with the economic vulnerability and environmental instability contributed to these fluctuations.

2. Methods

2.1. Study context: post-colonial war violence and famine

As stated above, the Gorongosa region was heavily marked by histories of war and persecution in the past fifty years. The region endured the Portuguese colonial violence, independence war (1964–1974) led by the Mozambican Liberation Front (*Frelimo*), and the postcolonial civil war which was interspersed by droughts and famine with lethal deadly outcomes. *Frelimo*’s postcolonial project centered on a modernist agenda and state nationalism (Cahen, 2000). This state revolutionary project linked sociocultural and religious groups, along with their marital, family, and broader community practices, with backwardness. These groups were accused of obstructing the socialist revolution and faced severe punishment (c.f. Donham, 1999; Mueggler, 2001). Individuals and their families accused of being unpatriotic or

traditionalists were tortured and killed, while others were imprisoned or deported to reeducation camps (Cabrita, 2000). This political project alienated significant segments of the Mozambican population, some of whom came to support the nascent rebel movement Renamo (Mozambican National Resistance).

The protracted civil war (1976–1992) pitted the Frelimo government against the Renamo rebels, significantly affecting the Gorongosa populations from the early days of the war, as Renamo established its main headquarters in the Gorongosa region. The Frelimo government mobilized contingents of foreign armies and military instructors in attempts to achieve military victory. The conflict is estimated to have caused one million deaths, around one million refugees, and four million internally displaced people. In the Gorongosa region, most of the local populations lived in the warzones, with the region continuously shifting between the regimes of control and violence of the government and rebel troops. In the Renamo-controlled areas, the rebel leaders authorised the civilians under their control to practice their religious beliefs both ancestral spirits worshipping and Christianity, and allowing local healers, prophets of all persuasions to operate. Such a posture conferred some legitimacy to the broader purposes of the civil war on Renamo's side. Yet, Renamo soldiers tortured and executed numerous local chiefs, healers, and Christian followers on the grounds of colluding with government forces or fostering resistance among the populations under their control. This pattern of behavior consisting in fostering both intimacy and terror was equally practised in the government-controlled areas. Thus, the civilian population moved constantly in search of protection and survival, while the perils of persecution and death permeated everyday life. Compulsory military recruitment of young men and women sustained the civil war efforts of all belligerent sides. Yet, social life continued within the civil warzones (Lubkemann, 2008a; Nordstrom, 1997) – e.g., food production and commercialization, marriage (forced or otherwise), intermittent participation in religious services—but social relations were shaped by mutual suspicion and betrayal among family and community members. As equally reported for other civil warzones (Coulter, 2009; Ellis, 1999; Higgs, 2020; Kastfelt, 2005), these fraught relations often led, either accidentally or deliberately, to kidnapping, detention, sexual assault, forced marriage, in addition to the murder of kin and neighbors.

Life in the Gorongosa warzones was further strained by the practice of *gandira*, a form of forced labor practice that severely disrupted family unity and solidarity. Men, women, and young girls were compulsorily recruited to carry food, ammunitions, and other wartime supplies for soldiers over extended periods. *Gandira* created further opportunities for soldiers to rape and force young girls and adult women into marriage, unleashing family and community networks under sustained attack (c.f. Nordstrom, 1997). To maintain social continuity, many parents accelerated premature engagement/marriage for their daughters while they were still very young, believing that their future husbands and in-laws would provide protection. Other girls and women, with or without parental support, sought survival by becoming strategically involved with soldiers. This practice became locally known as *ku toera mabota* (“to go after the boots”, meaning “to go after the soldiers”) (Igreja, 2015b). While similar patterns were observed in other civil wars, it is valid to question the extent to which young people exercised full agency in the decisions they made under such circumstances (Higgs 2020: 3; see also, Coulter, 2009). In Gorongosa, the expression *ku toera mabota* was used pejoratively, while also emphasizing the sense of tragedy and personal autonomy brought about by the civil war and famine. Amidst the civil war, the region was ravaged by drought and famine (1986–1988; 1990–1992), claiming many lives and resulting in family separations, child abandonment, divorces, and violence fueled by accusations of theft. Thus, this study examined the fallout of these wartime relationships on the contemporary structure of conflict networks.

2.2. The post-civil war and post-famine challenges

Following the signing of the general peace accord (1992) between

the Frelimo government and the Renamo rebels, the Frelimo-led government enacted an unconditional amnesty law that blocked any attempts by survivors to unleash official accountability processes to deal with the serious human rights violations and crimes perpetrated during the civil war (Igreja, 2015a). Following the growing involvement of the United Nations (UN) on post-civil war transitions through demobilization, reintegration, and democratization processes, and sometimes administration of entire territories, a contingent of government and Renamo troops were demobilized and benefited from socio-economic reintegration. The Renamo movement was officially transformed into a political party to participate in democratic elections, even though a significant number of their troops were not demobilized at the time. Twenty years later (2012–2017), these became sources of renewed violent political confrontations with government troops.

At the community level in former warzones, civil war survivors and ex-soldiers went to live in the same wartime villages and attempted to rebuild their lives. Unlike the former soldiers, who received financial support through the official demobilization and reintegration programs, ordinary war survivors were left to fend for themselves. Concurrently, the Mozambican central government attempted to mend estranged state and societal relations by placating the persecution of so-called “traditional” culture and healers while granting legal recognition to local chiefs and their conflict resolution institutions (Buur & Kyed, 2005; Nordstrom, 1997). In 1992, the national parliament enacted the Law of the Community Courts (law no. 4/92), which legalized local institutions of conflict resolution even though the state does not pay a salary to the community judges (Igreja, 2021). Both community judges and “traditional” healers work in the margins of the state, while playing significant roles as adjudicators, witnesses of disputes, and health providers in their communities (Buur & Kyed, 2005; Nordstrom, 1997).

While official peace was restored in the former warzones, still some legacies of the civil war have remained shrouded in silence. Family relations became engulfed in intractable conflicts and violence in the postwar era. Family silence was only broken in the context of socio-cultural rituals involving *gamba* spirits and spirit possession mediated by healers as well as during dispute deliberations in community courts (Igreja et al., 2021). Furthermore, the people in this region, as in many non-Western societies, inhabit a socio-cultural world wherein family conflicts and health problems are intrinsically linked, and are experienced and expressed as forms of injustice. The sense of injustice aggravates family divisions and conflicts (c.f. Mueggler, 2001; Perera, 2001; Stroeken, 2023).

Prior to the civil war, the extended family was responsible for handling serious social conflicts and health problems. During and after the civil war, family relations, trust, and mutual support practices were seriously disrupted. In this context, the Gorongosa's community courts and “traditional” healers came to play meaningful roles through hearing, diagnosing, and making referrals for the further handling of such cases. Unlike “traditional” healers, who typically address health issues, community courts handle both social conflicts and health problems. Thus, community courts constitute strategic sites to study social conflicts and health problems, the social ties of the litigants, and how some conflicts are associated with specific socio-economic and wellbeing outcomes. The study of disputants' social ties and conflicts allows for further examination of the risks associated with conflict, and the ways in which people discuss the organization and ineptitudes of their ongoing culture (Comaroff & Roberts, 1981; Hirsch, 1998; Yngvesson, 1993).

2.3. Ethics, study design and participants

The ethics committee of the Leiden University (Holland) and University of Queensland (Australia, Clearance No: 2009001021) granted the ethics clearance. To obtain further consent for the research at the local level, the goals of the study were presented to the local authorities and the residents in the Gorongosa district. The local authorities and residents gave their verbal consent to interview and administer a

questionnaire in the local community courts. The study employed both qualitative and quantitative methods (Igreja et al., 2024).

The qualitative study incorporated participant observations and interviews conducted by the first author at different points in time of the study. Between 1997 and 2000, we conducted randomly selected interviews with both ordinary individuals and judges of community courts ($n = 30$). The interviews focused on personal and collective experiences of civil war violence and famine context, participants' postwar experiences, the categories of relationships and conflicts that they perceived as persistent, the networks of relations (family and community) involved in conflicts and distressing experiences, and help-seeking behaviors. Participant observations focused on observing numerous litigation sessions in community courts. We conducted content and thematic analysis of the interviews to draw out emergent themes, the results were used to design a locally based, semi-structured questionnaire, which we named "Conflict and Relation Network Assessment Questionnaire (CRNAQ)". The CRNAQ gathered data relating to the timing of the interview, age, gender, and relations of the litigants, the type of conflict, the risks linked to conflicts, the number of people involved, and the type of resolution. Once the CRNAQ was completed and operational, quantitative data gathering initiated and lasted a decade in community courts (2002–2012).

The participants comprised a sample of 117,129 people that resided in the Gorongosa district, as revealed by the 2007 general population census of the area. People speak Chi-Gorongose, a mixture of various regional languages and there is, as well, a minority of Portuguese speakers. The official post-civil war efforts did not include policy initiatives to deal with the pernicious legacies of the civil war. Instead, the government efforts focused on the construction of new roads, which boosted the integration of Gorongosa district into the regional economies through manual agricultural production and commercialization of surplus. There were also projects supported by the World Bank and other international donors to remove landmines, and construct new markets, schools, and health centers. The installation of electric power stations also facilitated the use and spread of new mass media technologies which created economic, educational, and entertaining opportunities (Igreja, 2015b) and introduced new notions and practices of intimate relationships and love among post-civil war generations, a pattern observed as well in other post-civil war communities (Archambault, 2017; Coulter, 2009; Masquelier, 2009). Despite these socio-economic changes intercalated by periods of national economic and GDP growth and decline, large segments of the population are still confronted with poverty, unemployment, and post-civil war unmet expectations (Deacon & Sullivan, 2010; Honwana, 2003; Igreja et al., 2006).

While poverty has been endemic, the Gorongosa region remained generally peaceful for two decades (1992–2012), which allowed the collection of the quantitative data for this study without prohibitive security concerns (c.f. Stys et al., 2022). Despite occasional periods of electoral violence, this sporadic instability did not impact data collection which continued until 2015; however, this study only reports data from 2002 to 2012.

2.4. Locally based semi-structured questionnaire

The CRNAQ was administered as the participants presented their disputes in community courts (2002–2012). It assessed the litigants and events they were involved in by specifying several demographic characteristics, categories of relations and the nature of their dispute in community courts, the narrative of the dispute, the people involved, and the well-being outcomes as subjectively defined (c.f. Everett and Borgatti, 2005; Bright, Brewer & Morselli, 2022). In these courts, everyone, regardless of gender or age, has the right to speak until the litigant announces to the judges that the initial presentation (accusation or defense) is complete. As observed in other community settings, community courts are defined by proximity to people and most litigants know each other (Comaroff & Roberts, 1981; Hirsch, 1998; Isser, 2011; Yngvesson,

1993). While people define and narrate problems in their own terms, the initial presentation of the conflict is made by the plaintiff. The narrative typically follows a similar structure: i) presentation of the conflict, ii) the context and duration of the breach, and iii) evidence regarding the event's main participants. Following each presentation, the judges raise questions to assess the credibility of the accusation or defense. Although the litigants are the main protagonists in a dispute, the judges can probe witnesses (e.g., family members and neighbors).

Most theories of conflict resolution suggest that conflicting relations contain both manifest and latent conflicts. Latent conflict refers to underdeveloped social tensions, which can evolve over time to open hostility, such as breakdowns in communication, verbal threats, and, in some cases, violence (Doucet, 1997; Ramsbotham et al., 2011). In this regard, latent conflicts parallel risk factors as conceptualized in health literature (Kraemer et al., 2001). By combining the analytic tools of conflict resolution and health studies, and building upon the perspective of participants, we focused on the narrative mode of case-presentation in community courts to identify two dimensions of conflict: Principal conflict (PC) (e.g., "divorce"), and latent conflict (LC) or risk factor (e.g., "untold suspicion of marital infidelity"). Risk factors enhance understanding of the principal conflict. For instance, a plaintiff could report "divorce" as the PC and explain that her relatives had chosen a partner for her when she was still young ("premature marriage"). This dynamic of reporting manifest and latent conflicts is tantalizingly similar to Claire Langhamer's (2006) observation in her historical study of marital and sexual politics following World War-II in England whereby the approved forum to talk about adultery was the legal realm of divorce. In the case of our study, none of the study participants reported premature marriage as the PC, because this is a culturally accepted behavior when organized by the child's adult guardians. Yet, the divorce conflict gave the litigants the opportunity to expose the problems caused by a set of socio-cultural and economic practices around premature marriage. Likewise, attitudes such as "mistrust, jealousy, and honor" do not constitute reportable conflicts (PC), but they were used to explain the PC of "domestic violence" or "defamation." Such latent conflicts (risks) only emerged as they explained the context of the principal conflict.

The open-ended CRNAQ was applied in three community courts. The CRNAQ consisted of:

- Demographic characteristics of the plaintiff and the defendant: Date, age, gender, place of residence, and number of people involved in the dispute.
- Network of relations: Type of relationship between plaintiff and defendant.
- Dispute: Principal conflict.
- Narrative of dispute: Latent conflicts or risk factors.
- Health and behavioral problems: Harmful spirit possession; Alcohol abuse; Failure to menstruate; Sexual dysfunction; Nightmares; Aggressive behavior; Mental disturbance; Miscarriage; Physical wounds; Unspecified illnesses including death of kin members.
- Type of settlement: Winner; Loser; Referral to traditional healer, Christian religious healer, hospital, police, or district court; abandonment by one of the litigants.

2.5. Data analysis

Initially, we used a chi-square test to evaluate the statistical significance of observed differences in the proportion of male and female participants. The differences in gender representation between plaintiffs and defendants was also evaluated through a chi-square test, where the distributions of males and females in the plaintiff and defendant groups were expected to be equal. The distribution of age in plaintiffs and defendants was tested through a Welch two sample *t*-test.

Four networks were constructed, based on observations of social conflicts registered in the CRNAQ database: (1) interpersonal relation and social conflict; (2) risk factors and social conflict; (3) interpersonal

relations and wellbeing outcomes; and (4) social conflicts and wellbeing outcomes. All four networks are represented as bipartite directed graphs. For example, our bipartite network representing interpersonal relation and social conflict (IR-SC network) shows source nodes (interpersonal relation) linked to target nodes (social conflict) by an arrow (directed edge) indicating when interpersonal relations are associated with social conflicts. The edges (or arrows) are weighted to inform the frequency of associations observed in our CRNAQ database. The other three bipartite networks are constructed in a similar way by linking risk factor and social conflict (RF-SC network), interpersonal relation and well-being outcome (IR-WO network) and social conflict and well-being outcome (SC-WO network). For visualization and statistical analysis, we only used nodes and edges with at least 5 occurrences in the CRNAQ database. Python programming language was used to process the CRNAQ database and build all four bipartite networks. Cytoscape program (Shannon et al., 2003) was used to visualize the networks.

To test the statistical significance of the structural properties (e.g. average shortest path and eigenvector centrality) obtained from our observed IR-SC and RF-SC networks, we compared our observed networks to 1000 randomly created networks, by shuffling all observed associations in our observed IR-SC and RF-SC networks, while keeping the same degree and number of edges. We performed a *t*-test for the mean of one group of scores using Scipy package (scipy.stats.ttest_1samp). Chi-square tests were performed to evaluate statistical significance of observed frequency distribution across interactions between source and target nodes in each social network (IR – SC, RF – SC, IR – WO and SC – WO). To further investigate whether the influence of interpersonal relation, social conflicts and risk factors change over time, we analysed the structure of IR-SC and RF-SC networks for each year, from 2002 to 2012. To characterize the structure of networks, we considered the average shortest path length (Dijkstra, 1959) and eigenvector centrality measures (Newman, 2018). To analyse the change of node influence (eigenvector centrality) over time, we constructed bipartite networks based on data from each year (2002 to 2012) and then projected each bipartite network into two separate graphs (Vasques Filho & O’Neale, 2018). Each separate graph shows only connections between interpersonal relation, social conflicts, or risk factor. Pearson’s correlation test was used to infer significant changes over time (2002–2012) using Scipy package (scipy.stats.pearson). Finally, the content analyses of the qualitative interviews were used to add further context and explanation to the overall results.

3. Results

3.1. Description of conflict and relation network assessment questionnaire database

The CRNAQ database identified and registered 1718 cases of social conflicts, involving 3317 participants. The participants included 2121 males (64 %), 1072 females (32 %), and 122 individuals with missing age information (4 %). In two cases, the whole community was involved.

The number of males is significantly higher than the number of females ($\chi^2 = 344.63$, $df = 1$, $p < 0.01$).

The participants comprised plaintiffs (N = 1583) and defendants (N = 1610). Females were significantly over-represented as plaintiffs ($\chi^2 = 51$; $df = 1$; $p < 0.01$), while males were significantly over-represented as defendants ($\chi^2 = 37.1$, $df = 1$, $p < 0.01$) (Fig. 1a). In 95 % of cases, conflicts occurred between individuals at age 14 and 60 years of age, while 30-year-old individuals were the most represented age group among both plaintiff (n = 98) and defendant (n = 82) (Fig. 1b). The age distributions of plaintiffs and defendants were similar.

3.2. Types of interpersonal relations and social conflicts in the CRNAQ database

59 types of interpersonal ties were identified (Supplementary Table S1) and were grouped inside or outside the family. The interpersonal relations most frequently implicated in social conflicts within the family were “spouse vs. spouse” (36 %), “father-in-law vs. son-in-law” (7.5 %), “uncle vs. nephew” (6.2 %), “ex-husband vs. ex-wife” (5.7 %). Less frequent relational ties implicated in conflicts included “mother-in-law vs. son-in-law” (2.8 %), “brothers-in-law” (2.7 %), “cousins” (2.5 %), “father vs. daughter” (1.8 %), “brother vs. brother” (1.4 %), “brother vs. sister” (1.1 %), and “aunt vs. cousin” (1.1 %). The conflicts outside the family involved “neighbors” (14 %), “friends” (1.9 %), and “the entire community vs. The local community chief”.

There were 54 types of principal social conflicts (Supplementary Table S1). The most representative reported social conflict was “divorce” (11 %), followed by “domestic violence” (10 %), “debt” (8.4 %), “witchcraft accusation” (7.5 %), “suspicion of adultery” (6.8 %) and “lack of marital understanding and family abandonment” (6.3 %). The conflict that directly refers to unresolved civil war abuses appears in the seventh rank and involves “*gamba* spirits/war-related disputes” (4.9 %). In the local socio-cultural idiom, this indicates that an innocent person was killed during the civil war, and that their spirit returned to the realm of the living to seek retribution in the post-civil war era. Other social conflicts related to “community violence” (4.8 %), “husband fails to pay expenses and marital schedule” (4.6 %), “defamation” (4.5 %), “contested illicit deflowering” (4 %), “failure to pay bride price (*mabaitiro*)” (3.6 %) (a type of culturally inflected debt wherein the fiancé fails to pay his parents-in-law a pre-settled financial sum for breaking his fiancée’s virginity).

There were also conflicts involving “delaying to pay back *ku fewa*” (3.5 %) (a type of culturally-informed gift which changes its nature once there is a marital breakdown. Following divorce, *ku fewa* becomes a financial debt and a conflict particularly when the parents of the former or divorced fiancée delayed returning the gifts that the former or divorced fiancé had given when their relationship was still on track for the marriage/deflowering to be effectuated). Other conflicts with a lower percentual representation involved “custody of children” and “refusal to accept the cultural symbol of divorce”.

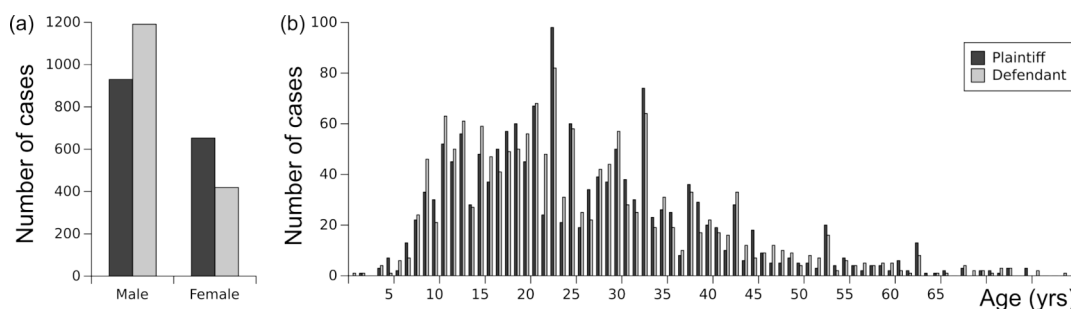


Fig. 1. (a) Number of male and female participants among plaintiffs and defendants in the CRNAQ database. (b) Age distribution of plaintiffs and defendants in the CRNAQ database.

space for agricultural production” (1.5 %).

3.4. Wellbeing outcomes

A total of 28 wellbeing outcomes were described in the CRNAQ database ([Supplementary Table S1](#)). The most frequently reported outcomes were “various illnesses” (33 %), “aggression” (28 %), “harmful spirit possession/mental disturbance/nightmares” (10 %), and “physical wounds and living with fear” (8.5 %). Plaintiffs also reported suffering from “infertility/sexual impotence” (7 %) and “pain in the belly, irregular menstruation, miscarriage, and failure to bear children” (5.6 %).

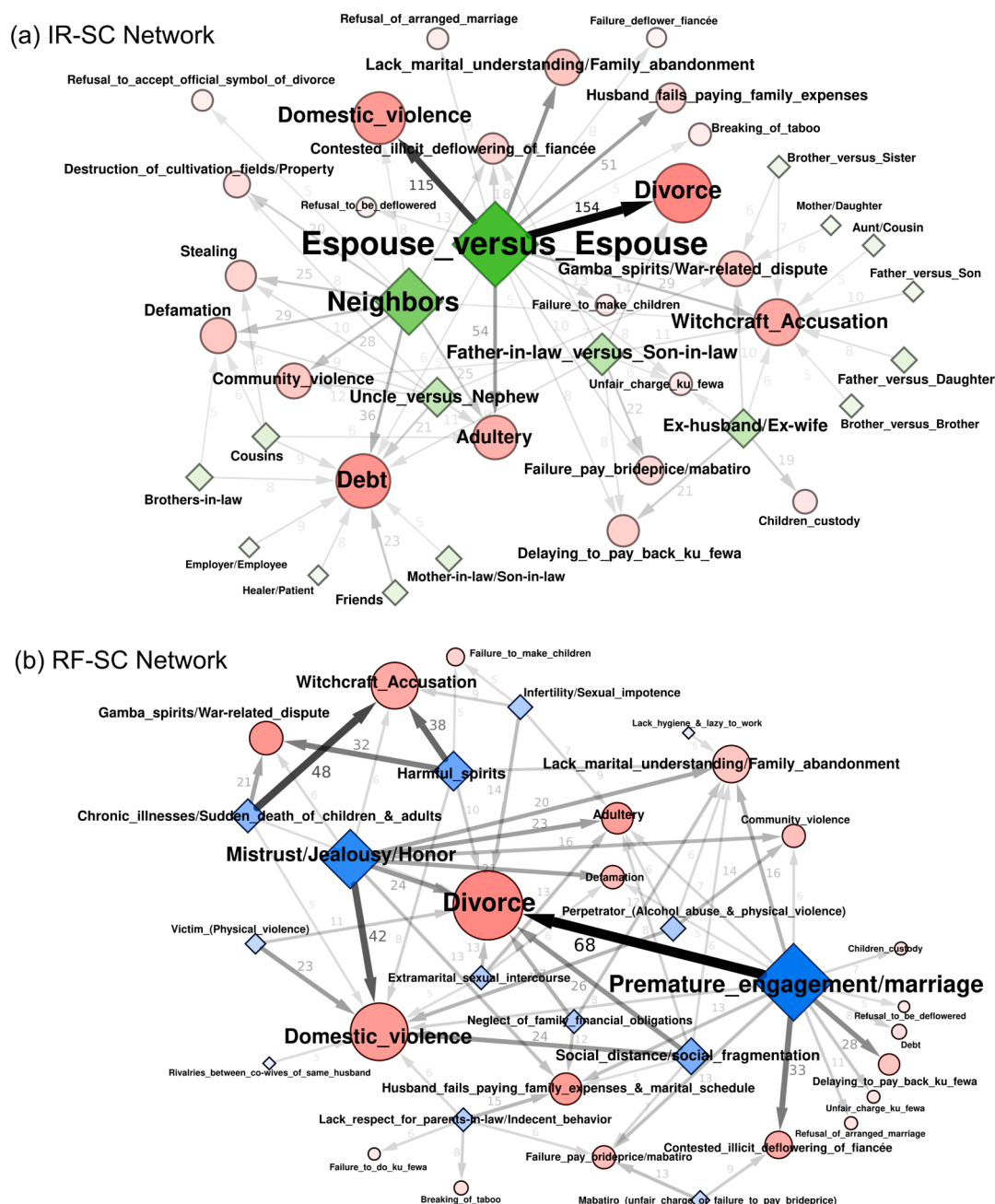


Fig. 2. Social networks showing the relationships between Interpersonal relations (IR), Social Conflict (SC) and Risk factors (RF). **(a)** The IR-SC network shows the Interpersonal Relations as source nodes (green) and Social Conflicts as target nodes (red) with the arrows indicating which relations are promoting the conflicts. **(b)** The RF-SC network shows the Risk Factors (source nodes in blue) underlying Social Conflicts (target nodes in red). The node size and color intensity are proportional to the number of connections (degree). The edge thickness and numbers on edges indicate the number of cases observed in the CRNAQ database. Only connections with at least 5 cases are shown. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

3.5. Associations between interpersonal relations, social conflicts and risk factors

We first created two social networks from data available in the CRNAQ database: Interpersonal relations associated with social conflicts (IR – SC network; Fig. 2a; Supplementary Table S2) and risk factors contributing to social conflict network (RF – SC network; Fig. 2b; Supplementary Table S2). To test the internal consistence of the structure of our observed IR-SC network and RF-SC network, we considered the average shortest path length and eigenvector centrality measures for a statistical analysis. The structural properties, eigenvector centrality and average shortest path, of the observed IR-SC network (Supplementary Fig. S1A-B) and RF-SC network (Supplementary Fig. S1C-D) are significantly different than randomly created networks (see methods for details). Thus, this indicates an internal consistence in our observed IR-SC and RF-SC networks.

The “spouse vs. spouse” is the interpersonal relation with the strongest influence over 564 social conflicts (average eigenvector centrality = 0.55; Supplementary Table S3). The principal conflicts mostly linked to disputes between spouses were “divorce” (27 %), “domestic violence” (20 %), “adultery” (9.5 %), and “witchcraft accusations” (5.1 %) ($\chi^2 = 884.61$, $df = 16$, $p < 1e-10$). “Neighbours” are the second most influent interpersonal ties implicated in 191 social conflicts (average eigenvector centrality = 0.32; Supplementary Table S3). The most common principal conflicts involving “neighbours” were debt (19 %), “defamation” (15 %), “stealing” (13 %) and “adultery” (13 %) ($\chi^2 = 61.09$, $df = 9$, $p = 1e-09$). “Father-in-law vs son-in-law” also influenced up to 82 social conflicts (average eigenvector centrality = 0.23; Supplementary Table S3), with the most relevant conflict being “failure of paying brideprice” ($\chi^2 = 21.02$, $df = 7$, $p = 0.0037$).

The RF – SC network highlights the main risk factors which are directly linked to principal conflicts (Fig. 2b). The main risk factor reported were “premature engagement/marriage” which is linked to 237 social conflicts (average eigenvector centrality = 0.38; Supplementary Table S3) but predominantly associated with “divorce” (29 %), “illicit deflowering of fiancée” (14 %) and “delaying pay back of *ku fewa*” (12 %) ($\chi^2 = 244.33$, $df = 14$, $p < 1e-10$). “Mistrust/jealousy/honor” was also identified as a risk factor linked to 171 principal conflicts (average eigenvector centrality = 0.33; Supplementary Table S3) significantly contributing to “domestic violence” (24 %), “divorce” (14 %), “adultery” (13 %), “defamation” (12 %), “family abandonment” (11.5 %) and “community violence” (9 %) ($\chi^2 = 50.42$, $df = 8$, $p < 1e-07$). The risk factor “harmful spirits” was associated with 102 conflicts (average eigenvector centrality = 0.27; Supplementary Table S3) being the most salient “witchcraft accusation” (37 %) and “*gamba* spirits/war-related disputes” (32 %) ($\chi^2 = 59.05$, $df = 5$, $p < 1e-10$). “Chronic illnesses or sudden death” is a risk factor linked to 79 social conflicts (average eigenvector centrality = 0.23; Supplementary Table S3) but highly associated with cases of “witchcraft accusation” (60 %) and “*gamba* spirits/war-related disputes” (26 %) ($\chi^2 = 62.51$, $df = 3$, $p < 1e-10$). Finally, “social distance” was identified as risk factor for 76 conflicts (average eigenvector centrality = 0.22; Supplementary Table S3) mainly leading to “divorce” (34 %) and “domestic violence” (31 %) ($\chi^2 = 36.57$, $df = 5$, $p < 1e-06$).

3.6. Associations between Interpersonal relations, social conflicts, and wellbeing outcomes

In 20 % of cases, participants reported wellbeing outcomes related to interpersonal relations and social conflicts. Therefore, we also built other two social networks, interpersonal relation underlying wellbeing outcome network (IR – WO network; Fig. 3a; Supplementary Table S2) and social conflict influencing wellbeing outcome network (SC – WO network; Fig. 3b; Supplementary Table S2), to further investigate the relationship between interpersonal relation, social conflict, and wellbeing outcomes. The IR – WO network reveals that “spouse vs. spouse”

was a ‘hub’ linked to at least six recurrent wellbeing outcomes (Fig. 3a). A dozen interpersonal relations were mainly associated with six wellbeing outcomes but “spouse vs. spouse” has the largest number of negative wellbeing outcomes (181) including aggression (50 %) and various illnesses/death (19 %) reported to stem from conflict between spouses ($\chi^2 = 167.69$, $df = 5$, $p < 1e-10$). There were several other interpersonal relations influencing wellbeing outcomes mainly “various illnesses/death such as “ex-husband/ex-wife”, “father-in-law vs. son-in-law”, “uncle vs. nephew”, and a few others (Fig. 3a). “Neighbors” were reported a few times (12) to be involved in outcomes such as fear, violence, and aggression.

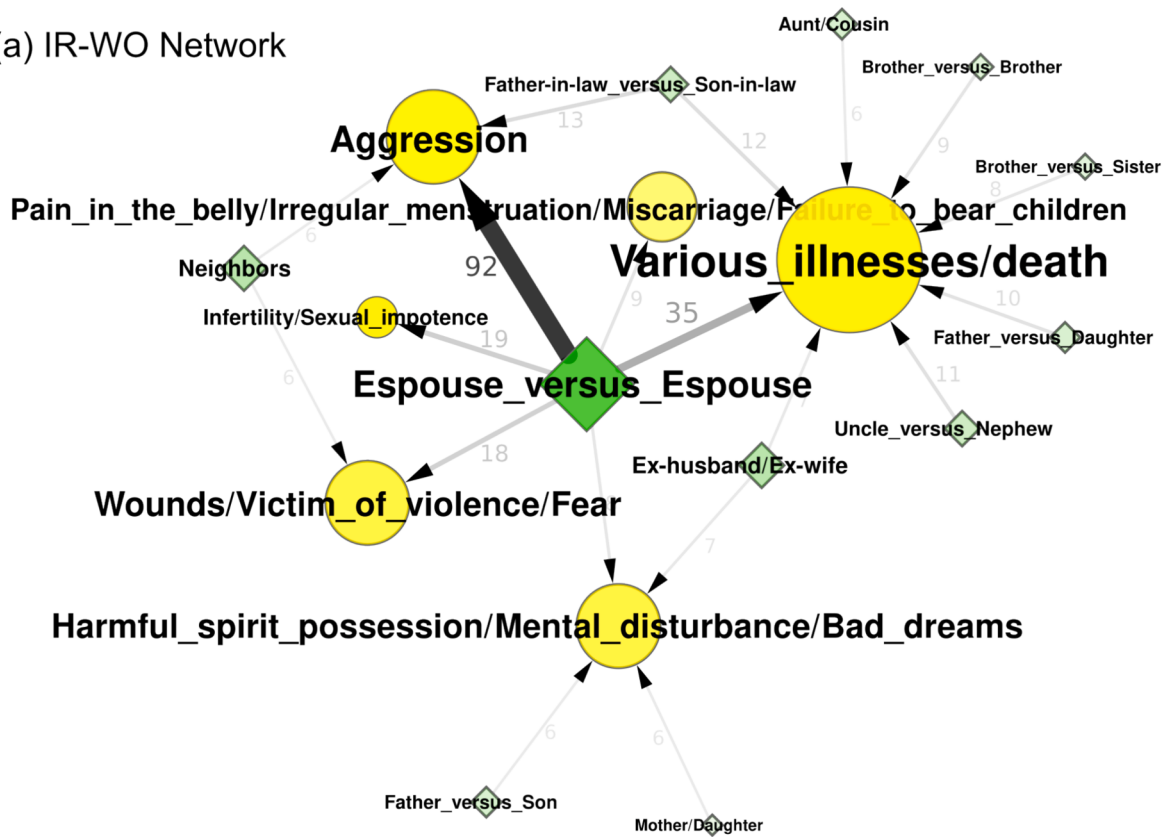
The SC – WO network also show all social conflicts linked to wellbeing outcome. “Aggression” and “various illnesses” are the most reported wellbeing outcomes initiated by nine social conflicts including “witchcraft accusation”, “divorce”, “*gamba* spirits/war-related dispute”, “domestic violence” and “adultery” (Fig. 3b). “Witchcraft accusation” was the main social conflict (N = 94) reported to be linked to cases of “illnesses and death” (71 %; $\chi^2 = 155.25$, $df = 4$, $p < 1e-10$). Another social conflict implicated in negative wellbeing outcomes is “*gamba* spirits/war-related disputes” (N = 57) (Fig. 3b). These war-related conflicts contribute to a few wellbeing outcomes including “various illnesses and death” (58 %) and complications in pregnancy and mental health often reported in conjunction with experiences of spirit possession, bad dreams, and mental distress ($\chi^2 = 19.26$, $df = 3$, $p < 0.001$; Fig. 3b). “Domestic violence” (N = 52) is the main social conflict contributing to “aggression” (48 %) but also contributed to “illnesses/death”, “fear/violence” ($\chi^2 = 7.42$, $df = 2$, $p = 0.02$). Finally, “adultery” (N = 21) is the second most common social conflict associated with “aggression” (76 %; $\chi^2 = 5.76$, $df = 1$, $p = 0.01$).

3.7. Passage of time, interpersonal relations, social conflicts, and risks

We also investigated how interpersonal relations, social conflicts and risk factors may change over time (2002 to 2012). A general observation of the overall network structure shows that between 2005 and 2010, there was a significant shift as indicated by sudden spikes and drops in the influence of many nodes. However, a closer inspection of how the influence (eigenvector centrality) of each node varies over time shows that some interpersonal relations and social conflicts are significantly increasing or decreasing over the years while others are oscillating between spikes and drops (Supplementary Fig. S2A-B). The categories of relationships that significantly increased since 2002 were “spouse vs. spouse” (Pearson’s coefficient = 0.86; $P = 0.0006$; Supplementary Fig. S2A and Supplementary Table S3) and “ex-husband vs ex-wife” (Pearson’s coefficient = 0.76; $P = 0.006$; Supplementary Fig. S2A and Supplementary Table S3). In turn, the categories of relationships that decreased over time were “cousins” (Pearson’s coefficient = -0.73; $P = 0.009$) and “neighbours” (Pearson’s coefficient = -0.87; $P = 0.0004$; Supplementary Fig. S2A and Supplementary Table S3). Also, “uncle vs nephew” had a spike in 2005 and showing a trend of reduction over the years (Pearson’s coefficient = -0.47; $P = 0.14$; Supplementary Fig. S2A and Supplementary Table S3).

In relation to social conflicts, the data shows similar patterns of increases and decreases over time. For example, the “*gamba* spirits/war-related disputes” significantly increased over time (Pearson’s coefficient = 0.64; $P = 0.03$; Supplementary Fig. S2B and Supplementary Table S3). Furthermore, conflicts such as “failure to pay *mabatiro*” (Pearson’s coefficient = 0.81; $P = 0.002$; Supplementary Table S3), “delaying to pay *ku fewa*” (Pearson’s coefficient = 0.69; $P = 0.01$; Supplementary Table S3) also seem to be increasing over the years. In the opposite direction, various social conflicts significantly reduced over time namely “adultery” (Pearson’s coefficient = -0.80; $P = 0.002$; Supplementary Fig. S2B and Supplementary Table S3), “community violence” (Pearson’s coefficient = -0.62; $P = 0.03$; Supplementary Fig. S2B and Supplementary Table S3), “stealing” (Pearson’s coefficient = -0.65; $P = 0.03$; Supplementary Fig. S2B and Supplementary

(a) IR-WO Network



(b) SC-WO Network

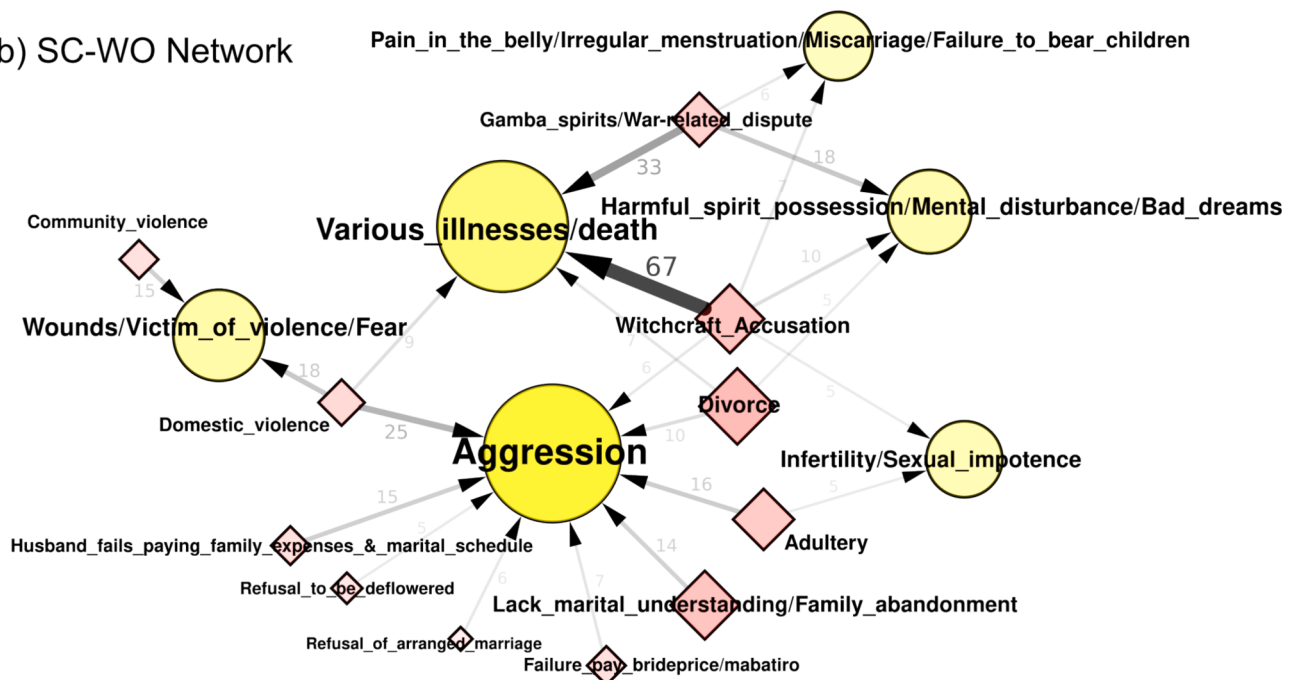


Fig. 3. Social networks showing the relationships between Interpersonal relations (IR), Social Conflict (SC) and Well-being Outcomes (WO). (a) The IR-WO network shows the Interpersonal Relations as source nodes (green) and Well-being Outcomes as target nodes (yellow) with the arrows indicating which relations and well-being outcome are associated in conflict cases. (b) The SC-WO network shows the Social Conflicts (source nodes in red) associated with Well-being Outcomes (target nodes in yellow). The node size and color intensity are proportional to the number of connections (degree). The edge thickness and numbers on edges indicate the number of cases observed in the CRNAQ database. Only connections with at least 5 cases are shown. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)

Table S3), and “destruction of property” (Pearson’s coefficient = -0.76; $P = 0.006$; Supplementary Fig. S2B and Supplementary Table S3). Alongside the up and down trends, some conflicts did not statistically evolve in any specific direction. For example, “divorce” has not consistently changed over time (Pearson’s coefficient = 0.18; $P = 0.58$) but instead increased from 2005 to 2008 and then dropped into its lowest levels in 2012. This was the case as well with “debt” (Pearson’s coefficient = 0.18; $P = 0.58$), which had a spike in 2003 and trend floating high with slight reduction over the years. Finally, the three most influential risk factors also showed an abrupt increase in “premature marriage” and “mistrust/jealousy/honor” whilst a sharp drop was seen in “harmful spirits” around 2006 and 2008 (Supplementary Fig. S2C and Supplementary Table S3).

4. Discussion

This long-term study of civil war survivors and post-civil war generations in the Gorongosa region (center of Mozambique) mapped the local network of problems comprising of enduring family disputes, mistrust, and debts, contested gender and generational expectations, and wellbeing strains. Various ethnographic, sociological, and survey-based studies have analysed the complexities of post-civil war reconstruction through the lenses of specific groups and processes such as socio-economic reintegration of former male and female combatants, refugees and internally displaced populations, former child soldiers and war widows (Amony, 2015; Brück & Schindler, 2009; Coulter, 2009; Gatewood & Price, 2017; Katto, 2014; Pencey and Stanley, 2001; Schafer, 2007; Wiegink, 2020). However, our study is the first to employ network analysis of data empirically generated in community courts to examine the local network of problems involving entire communities over a decade (2002–2012) and to demonstrate that fragmented cultural practices have become risks, particularly through “premature engagement/marriage,” which has fueled conflicts among various categories of family and community relations. To highlight the significance of these local network of problems, we highlighted that the nodes (representing interpersonal relations, conflicts, risks, wellbeing outcomes) are shaped not only by their contemporary socio-cultural and economic environments (Borgatti, Everett, and Johnson, 2018) but also by the histories that infect them. In this case, nodes represent not only the ongoing breakdown of family and social relations and the linkages to risks, but also serve as visible and condensed manifestations of processes that have faded over time, particularly those related to civil war. These past events continue to impact the relationships of survivors and their post-civil war offspring in ways that is a stumbling block to social reconstruction and development goals.

The contextualization of local network of problems (Jayawickreme et al., 2017) revealed general insights and specificities. In general, the gender dynamics in these conflicts showed that females were significantly over-represented as plaintiffs while males were significantly over-represented as defendants. This gender division in the production of interpersonal conflicts and the usage of community courts is consistent with other observations of litigants’ positions in courts in sub-Saharan Africa (Comaroff and Roberts, 1981; Hirsch, 1998) and beyond (Langhamer, 2006). When considering the specificities of interpersonal relations and conflicts, André and Platteau (1998)’s study of Rwanda demonstrated that the legacies of Belgian colonialism, coupled with extreme land scarcity, kinship rules of inheritance, and inadequate state interventions, impacted interpersonal relations and triggered serious conflicts in the father – son dyad. These perennial conflicts took place at the level of family structures and relations (for instance “father vs. son”). In contrast, our analysis revealed other category of relationships in the network structure namely “spouse vs. spouse”. Thus, it is pertinent to interrogate both the reasons behind conflicts involving “spouse vs. spouse”, as well as, the persistence of socio-cultural practices of “premature engagement/marriage” even though it fuels family disputes and divorces with serious economic and wellbeing implications – as indexed

by the conflicts of “husband fails paying expenses” (4.6 %) and culturally-influenced financial debts such as “failure to pay bride price/mabatiro” (3.6 %) and “delaying to pay back *ku fewa*” (3.5 %).

The continuities in the use of disrupted socio-cultural practices can be inferred from a set of interlinked factors around expectations of family and social relations and the fragmentations caused by the civil war. During the civil war, many parents reduced the period of the social relations of exchange or the age of premature engagement because of their fear and inability to protect their young daughters from sexual predators particularly the soldiers from both government and rebel forces, and militia groups, regionally known as *mujibas* (c.f. Jentsch, 2022; Nordstrom, 1997; Schafer, 2007; Wiegink, 2020). In the event of sexual violence, their daughters would not be able to marry or receive socio-economic support from their future husbands and parents-in-law, which brought shame (*manhadzo*) and dishonor to the family, as well as stigma to the young girls (c.f. Coulter, 2009). In this context, premature engagement became a coping mechanism, albeit a problematic one.

In the post-civil war era, the practice of premature marriage has continued, but it has become a source of instability to family formation and maintenance. This dynamic contrasts with post-civil war Sri Lanka whereby the study participants complained about challenges to expand social networks because of “not being able to get married” as well as the inability to get their children married (Jayawickreme et al., 2017). In post-civil war Sierra Leone, former abducted girls and ex-female soldiers voiced criticisms over their mothers’ generation for narrowly focusing on getting married and bearing many children, while the new generations “want to be educated” to acquire a profession (Coulter, 2009: 183; see also for Uganda, Amony, 2015). Furthermore, in post-1994 genocide Rwanda, the dominance of Christian religious groups (Godard, 2003) does not seem to have offset the collapse of the cultural practice of levirate marriage that cuts off war widows from family networks (Bruck & Schindler 2009: 302). In this predicament, war widows could only rely on self-help and sociotherapy groups (Richters, Dekker & Scholte, 2008). In contrast to these three cases, in post-civil war Gorongosa, the integration of the post-civil war generations into social networks through marriage was not the problem. Young people were monitored once they became prematurely engaged and subsequently pressured to marry hastily. The parents and their offspring did not generally contest the issue of dropping out of school, except during public events where officials reiterated the government’s commitment to reinforcing girls’ education and abolishing premature marriage. The crux of the matter is that premature marriages frequently break down, resulting in significant financial debts, disrupting the expansion of social networks, and continuously undermining the efforts of the state and international donors to achieve development goals by increasing girls’ participation in formal education.

The haste in the post-civil war era for premature engagement/marriage derived from the parents’ attempt to avoid their wartime experiences of *inda luza* (I lost). In the warzones people used to sing, “*inda luza lero, inda luza lero*” (translated as, “I lost today, I lost today”) referring to the unsanctioned breaking of virginity of their daughters perpetrated by the soldiers (Igreja, 2018b). In the post-civil war period, these songs were performed in ritual events, but the content of fear and despair that the song encapsulates continued to shape the strategies and actions of parents and other adult guardians. Alongside these culturally inspired ways of expressing and processing deeply tormenting memories (Argenti-Pillen, 2003; Mueggler, 2001; Perera, 2001), the increasing use of cell phones and the consumption of television and videos have likely influenced the behaviors of post-civil war generations regarding flirting, sexual intimacy, and marriage. In turn, these new behaviors have exposed the inability of the parents and other adult guardians to trust the post-civil war generations to take their own autonomous decisions thereby aggravating their resolve to hastily accelerate the premature engagement (Igreja, 2015b; c.f. Masquelier, 2009). While other post-conflict studies have noted trust deficits stemming from ethnic divisions and past wartime affiliations (Coulter, 2009; Kijewski and

Freitag, 2018), the locus of mistrust in the Gorongosa case is primarily centered within families and intensified between the wartime and postwar generations.

For manually based agricultural economies like that of the Gorongosa region, the linkages of gender and generational conflicts, interpersonal disputes, and health problems have significant consequences for self-sustainability. The commercialization of agricultural surplus positively contributed to the seasonal circulation of financial capital; however, gains were not reinvested in other areas of social and economic life. Instead, they were primarily used to settle old and new debts (e.g., see the conflict of *ku fewa*). This predicament further compromised or retarded the post-civil war social reconstruction efforts and development goals. Our analysis of the evolution of these conflicts over a decade revealed that the network structure was reducing in the number and intensity of the nodes (e.g., conflicts, relationships, and risks). Yet, a detailed examination of the specificities of the variations revealed that some of the nodes continued to increase in significant ways, whereas others decreased. These fluctuations can be linked to the role of passage of time in shaping unresolved legacies of civil wars as well as the fragility of agricultural economies due to unpredictable annual rainfalls and volatility of global economic markets and cyclical global economic crisis. Future studies of post-civil war communities should systematically explore the linkages between war-related socio-cultural disruptions, interpersonal conflicts, and economic productivity. Given that in this cultural setting there is no status of limitation for serious violations and debts, it will be necessary to analyse how the conflict of “delaying to pay back *ku fewa*” gets inserted in cycles of debts with no end across generations.

The overall result of this study can inform key policy ideas. Given the significance of cultural practices that shape family and community relations before, during, and after civil wars, state actors and international development donors must focus on policy interventions grounded in the concrete realities of families and their communities. Family and community networks are built on relationships that are adversely affected by the experiences of collective violence. Therefore, the need to act upon the lingering and emerging risks, and the types of family and community relationships most affected by civil war and its legacies. This categorization is essential to implementing tailored programs that mend broken family and social ties and address the generational divides by engaging the post-civil war generations (boys and girls) alongside their parents or adult guardians as partners to attain development goals. Finally, investments should be made in community institutions and courts, while also safeguarding these local entities from nationwide political polarization and occasional violence that can undermine their legitimacy. Such legal safeguards are essential for containing conflicts among local users, and for the broader recovery efforts and development initiatives of post-civil war communities.

CRedit authorship contribution statement

Victor Igreja: Writing – review & editing, Writing – original draft, Supervision, Resources, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Françisco Aparecido Rodrigues:** Visualization, Formal analysis. **Alexandre Santos Cristino:** Writing – review & editing, Visualization, Methodology, Formal analysis.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.worlddev.2025.106930>.

Data availability

Data will be made available on request.

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